

Rob Snihur  
QCD mtg., Dec. 12, 2003.

# Jet Subgroup Report

- Review progress towards goals for Winter 2004 conferences
- Assist other groups:
  - Jet Corrections (Jet Task Force)
  - MC Simulation
- Planning move to IP-based video conferencing
- **Meetings: Off-week Fridays 11:30-1 in Trailer 159 (video available)**
- **Mailing list: [cdf\\_jet@fnal.gov](mailto:cdf_jet@fnal.gov) (archived)**
- **Web page: link from CDF QCD page holds copies of presentations**

# Goals for Jet Analyses

- Midpoint algorithm for all analyses
- Inclusive jet cross section (& dijet mass):
  - Want to see raw s (jet): data vs. MC
  - Unsmearing to hadron level using Run I MC
  - Focus on central
  - Forward is secondary
- Dijet angular:
  - Unsmear to hadron level using Run II MC
  - Need to do full simulation in forward region
- W+jet cross section:
  - Midpoint value 0.4 or 0.7
  - Two independent analyses
  - How to unsmear b-jets?
- W+jet:
  - Overlap with lepton+jets group
  - Focus on jet-specific issues

# Talks on Jet Analyses

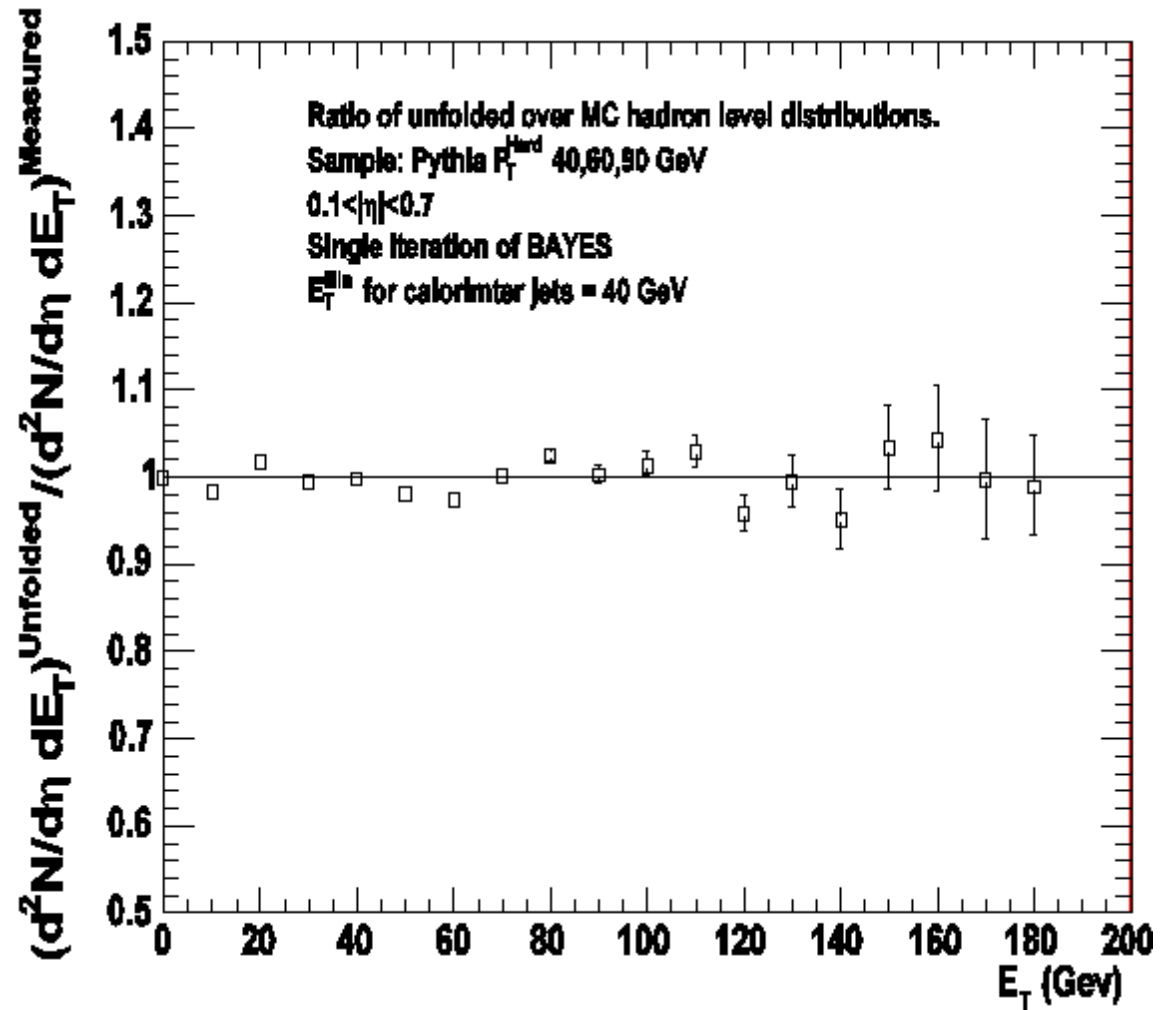
Blue = QCD mtg.

Red = Jet mtg.

- Midpoint algorithm for all analyses!
  - Oct. 3 MidPoint Algorithm Joey Huston
- Inclusive jet cross section
  - Oct. 10 Unsmearing using the MC and Unfolding based on Bayes Theorem F. Chlebana
  - Oct. 17 Jet Inclusive Analysis Gene Flanagan
  - Oct. 24 Update on Unfolding Using the Bayesian Method G. Flanagan
  - Oct. 24 Status Report on RunII Jet XSec Unsmearing: G. Latino
    - MonteCarlo Stntuples Production Status.
    - Incl. Jet XSec. Data-MonteCarlo Comparison Status
  - Oct. 31 Inclusive Jet Studies G. Latino
- Dijet Mass
  - Nov. 07 Absolute Jet Corrections from Run 1 & Run 2 and the Dijet Resonance Search R. Harris
  - Oct. 10 Progress & Plans for the Dijet Mass and Angular Fraction Analysis R. Harris
- Dijet angular:
  - Nov. 07 MC Comparisons 5.1.0pre7 and 4.9.1 Lee Pondrom
- b-jet cross section:
  - Oct. 03 Inclusive b-jet x-section Monica D'Onofrio
  - Oct. 24 Update on b-Jet XSec Measurement
  - Oct. 31 B-jet Production
  - Oct. 10 Update on b-Jet XSec Measurement
  - Nov. 21 Jets Trigger efficiency: JetClu and MidPoint
- W+jets:
  - Oct. 17 W+jets Studies B. Cooper
  - Oct. 31 W+jets Studies B. Cooper
  - Nov. 14 W + n Jets Update Andrea Messina
  - Nov. 21 W + Jet Cross Section (PreBlessing) Andrea Messina
- Misc.
  - Oct. 10 Organizing Data and MonteCarlo Stntuples Production for Winter 04 Conferences G. Latino
  - Nov. 07 New MC Request/Stntuple Production Status G. Latino

# Inclusive Jet Cross Section

- New unfolding procedure
- Uses MC
- Test:
  - Split MC samples in half
  - Determine resolution matrix with one
  - Apply to the other
  - Plot cross section ratio



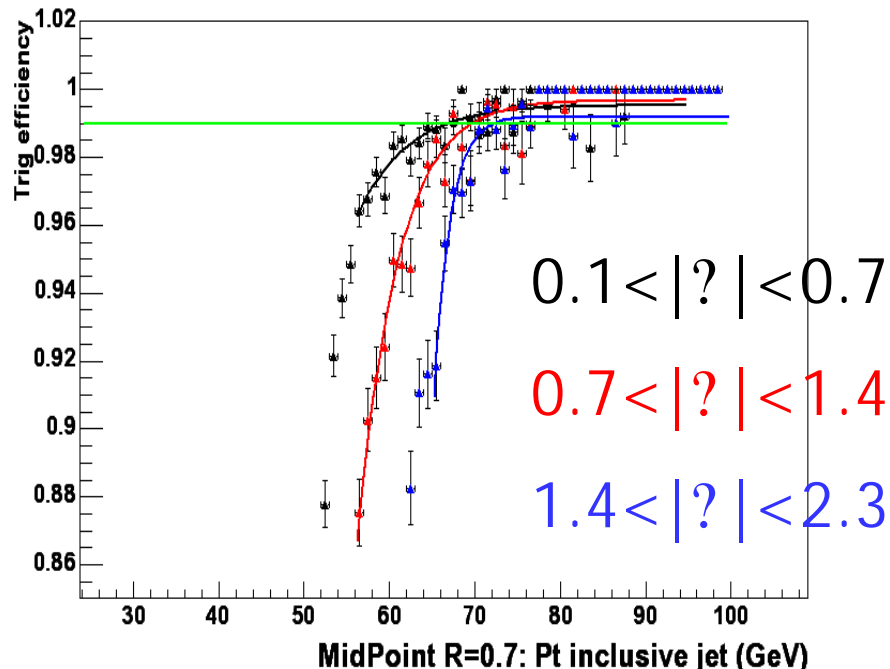
# Inclusive b-Jet Cross Section

- Midpoint (R=0.7) algorithm  
trigger efficiency
- Forward eta bins too!

More details in:

[http://www-cdf.fnal.gov/internal/people/links/MonicaDOnofrio/b\\_incl.html](http://www-cdf.fnal.gov/internal/people/links/MonicaDOnofrio/b_incl.html)

50 GeV Jet Trigger 4.10.4: 3 superimposed regions in rapidity



100 GeV Jet Trigger 4.10.4 3 regions superimposed in rapidity

